

**Health Care Sector**

Occupation	Avg Wages	Indiana Outlook LT / ST*	Certification	Career Pathway	Avg. Instruct Hrs.	Rationale/Notes	Cost of Cert Exam	Prior Learning Credits at Ivy Tech**	Related Skills & Competencies
Certified Nurse Aide	\$23,221	20.4% / 3.5%	Approved State Certification	LPN to ASN to Registered Nurse to BSN	105 hrs	Although wage is not high, the demand & opportunity for pathways is strong.	\$75 Skills & Written	HLHS 107 (CNA Preparation)	<ul style="list-style-type: none"> <li>Attend to patient needs including grooming, applying dressings, &amp; turning bedridden patients</li> <li>Collect specimens.</li> <li>Record patient vital signs</li> <li>Observe &amp; record food &amp; drink intake &amp; output</li> </ul>
Pharmacy Technician	\$26,726	28.0% / 3.7%	Certified Pharmacy Technician (CPhT)	Medical Assistant or EKG Technician	400 hrs	Not a traditional pathway, but can lead to other technical degrees, such as EKG technician.	\$129 PTCE; \$105 (EXCPT)	PHAR 101 (Pharm Tech I), PHAR 201 (Pharm Tech II), & PHAR 202 (Pharmacy Technician Experiential Seminar)	<ul style="list-style-type: none"> <li>Receive prescription requests &amp; confirm that information is complete &amp; accurate</li> <li>Maintain proper storage of medicines</li> <li>Prepare bulk medicines</li> <li>Prepare &amp; affix labels</li> <li>Assist customers in checking out</li> </ul>

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Emergency Medical Technician	\$28,538	8.6% / 1.1%	State Certification	To EMT Intermediate to Paramedic to LPN	Approx. 150 hrs	EMT Basic, Intermediary & Paramedic (associate degree) is a clear pathway. EMT Basic requires both classroom & practical experience.	\$15	PARM 102 (Emergency Medical Technician-Basic Training)	<ul style="list-style-type: none"> <li>• Administer first aid &amp; life support</li> <li>• Perform emergency diagnosis &amp; treat</li> <li>• Observe, record &amp; report the patient's condition</li> </ul>
Medical Coder	\$29,000	20.5% / 3.0%	American Academy of Professional Coders - Certified Professional Coder (CPC)	To AHIMA Certified Coding Specialist (CCS) to Registered Health Info Tech (RHIT) to Registered Health Info Administrator (RHIA)	Not specified	The CPC is not required by the industry currently, however many major employers require it. The CPC will qualify individuals for coding in a physician's office.	\$300	MEAS 137 (Medical Insurance & Basic Coding w/ Computer Applications)	<ul style="list-style-type: none"> <li>• Proficiency in adjudicating claims for accurate medical coding</li> <li>• Proficiency across a wide range of coding services</li> <li>• Sound knowledge of medical coding rules &amp; regulations</li> </ul>
Dental Assistant/ Expanded Duties Dental Assistant	\$33,700	36% / 3.9%	Limited Radiography Certification	To Dental X-ray Technician to Dental Office Manager to Dental Hygienist	120	The demand for Dental Assistants is large & growing.	\$60	Not available t this time.	<ul style="list-style-type: none"> <li>• Provide patient care, take dental radiographs, prepare patients &amp; equipment for dental procedures, &amp; discharge office administrative functions under supervision</li> <li>• Keeping medical records, reception &amp; patient intake, scheduling, equipment maintenance &amp; sterilization, basic</li> </ul>

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									radiography, pre- and post-operative patient care & instruction, & taking tooth & mouth impressions
Patient Access (Patient Rep)	\$29,400	18% / 3.4%	Certified Healthcare Access Associate (CHAA)	Patient Access to Health Information Medical Technician or Medical Coder	120	This certification is not required industry-wide, but many major employers require it.	\$100	Not available at this time.	<ul style="list-style-type: none"> <li>• Coordinate communication between patients, family members, medical staff, administrative staff, or regulatory agencies</li> <li>• Identify &amp; share research, recommendations, or other information regarding legal liabilities, risk management, or quality of care</li> </ul>

### Information Technology Sector

Occupation	Avg Wages	Indiana Outlook LT / ST*	Certification	Career Pathway	Avg. Instruct Hrs	Rationale/Notes	Cost of Cert Exam	Prior Learning Credits at Ivy Tech**	Related Skills & Competencies
Computer Support Specialist	\$38,200	7.7% / 2.7%	COMP TIA A+	Network systems & communication analyst to network administrator to IT consultant	100+ hrs	Depending on the exam, the level of knowledge varies greatly. A+ is 8th grade.	\$168	CINT 210 PC Technology Essentials (requires passing A+ PC Essentials exam), & CINT 211 IT Technician (requires passing A+ IT Technician exam)	<ul style="list-style-type: none"> <li>• Install &amp; perform minor repairs to computer hardware, software, &amp; other equipment</li> <li>• Technical knowledge of computer networking &amp; security</li> </ul>
			CISCO Network Associate (CCNA)†	To Network Professional, Design Professional, & Internetwork Professional, & to Design Expert, Internetwork Expert, & Architect	40 hrs	CCNA documents skills needed for entry-level IT positions.	\$295 - \$300	Not available at this time.	<ul style="list-style-type: none"> <li>• Install, configure, operate, &amp; troubleshoot medium-sized routers &amp; switched networks</li> <li>• Basic mitigation of security threats</li> <li>• Use of wireless network protocols</li> </ul>
Electronics Installers/Repairers	\$40,000	14.0%/ 5.8%	Electronics Systems Professional Alliance (ESPA) Electronic Systems Technician (EST)	Supervisor or Manager	Not specified	ESPA provides multiple levels of certification.	\$250 - \$350	Not available at this time.	<ul style="list-style-type: none"> <li>• Disassemble entertainment equipment &amp; repair or replace defective components &amp; wiring</li> <li>• Install, service, &amp; repair electronic equipment or instruments</li> <li>• Calibrate &amp; test</li> </ul>

									equipment
Customer Service/ Technical Support Representative	\$28,971	14.7%/ 2.2%	CSP-1 <sup>†</sup>	Supervisor or Manager	40 hrs	CSP-1 documents skills needed to perform the occupation's tasks & duties.	\$140-160	Not available at this time.	<ul style="list-style-type: none"> <li>• Establish &amp; maintain a professional relationship with customers</li> <li>• Resolve customer concerns or issues</li> </ul>

**Business Administrative & Support, Finance & Insurance Sectors**

Occupation	Avg Wages	Indiana Outlook LT / ST*	Certification	Career Pathway	Avg. Instruct Hrs	Rationale/Notes	Cost of Cert Exam	Prior Learning Credits at Ivy Tech**	Related Skills & Competencies
Bookkeeper	\$31,000	8.7% / 2.5%	QuickBooks <sup>†</sup>	Payroll clerk to tax preparer to brokerage clerk	120 hrs	Knowledge & experience with windows-based computer applications.	\$150	Not available at this time.	<ul style="list-style-type: none"> <li>• Purchasing</li> <li>• Payroll</li> <li>• Create &amp; modify QuickBooks files</li> <li>• Process &amp; understand reports</li> </ul>
Admin. Assistant	\$28,985	3.0% / 1.6%	Internet & Computing Core Certification (IC3)	Executive assistant to office manager	70 hrs	IC3 includes knowledge of hardware, software, & Microsoft Office programs.	\$159	Not available at this time.	<ul style="list-style-type: none"> <li>• Prepare memos, letters, reports &amp; other documents using word processing, spreadsheets, &amp; other computer software</li> </ul>
			Microsoft Office User Specialist Certifications (MOUS or MOS)		12 weeks	MOUS or MOS provides employers with a reasonable expectation that a potential employee with this certification will be versed in Word, PowerPoint &	\$125***	OFAD218 (Microsoft Excel), OFAD103 (Microsoft Word), & OFAD 110 (Microsoft PowerPoint)	



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**Advanced Manufacturing Sector**

<b>Occupation</b>	<b>Avg Wages</b>	<b>Indiana Outlook LT / ST*</b>	<b>Certification</b>	<b>Career Pathway</b>	<b>Avg. Instruct Hrs</b>	<b>Rationale/Notes</b>	<b>Cost of Cert Exam</b>	<b>Prior Learning Credits at Ivy Tech**</b>	<b>Related Skills &amp; Competencies</b>
Production Worker	\$36,000	4.6% / 7.1%	Manufacturing Skills Standards Council (MSSC) – Certified Production Technician	Manufacturing Engineering Technician to supervisor or manager	140 hrs	MSSC is not recognized throughout the State, but the skills are relevant	\$280	ADMF 101 (Key Principles of Advanced Manufacturing) & ADMF 102 (Technology in Advanced Manufacturing)	<ul style="list-style-type: none"> <li>• Safety</li> <li>• Manufacturing processes &amp; production</li> <li>• Quality control</li> <li>• Measurements</li> </ul>
Entry Welder	\$31,000	-2.7% / 2.4%	American Welding Society (AWS) – Sense Certification	Welding technician to welding technologist or specialist	80 hrs	AWS offers multiple levels of credentials; testing facilities in Fort Wayne, Indianapolis, Evansville, South Bend & Lafayette	\$50	WELD 209 (Welding Certification)	<ul style="list-style-type: none"> <li>• Safely operate welding tools</li> <li>• Layout, position, measure, cut &amp; align pieces</li> </ul>
CNC Operator	\$31,000	7.3% / 4.0%	National Institute for Metalworking Skills (NIMS) – CNC Operator Level 1	CNC Programmer	120 hrs	NIMS offers multiple levels of credentials	\$90	Not available at this time.	<ul style="list-style-type: none"> <li>• Measurement &amp; Materials</li> <li>• Job Planning, Benchwork &amp; Layout</li> <li>• Manual Milling Skills</li> <li>• CNC Milling</li> <li>• CNC Turning</li> </ul>



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Heating, Ventilation, & Air Conditioning (HVAC)	\$40,217	33%/ 8.6%	EPA 608 & Local Municipality Licensure	Apprentice to Type I Technician to Type II Technician to Type III Technician to Universal Technician	Not Specified	Large demand with significant short-term growth & sustained long-term growth.	\$24.95	HVAC 101 (Heating Fundamentals), HVAC 103 (Refrigeration I), HVAC 208 (Heating Service), HVAC 211 (Refrigeration II), & HVAC 207 (HVAC Codes)	<ul style="list-style-type: none"> <li>Work on ventilation appliances &amp; release refrigerants into the air</li> </ul>
Underground Coal Mining	\$39,563	-5.2%/ -2.5%	Mine Safety & Health Admin. (MSHA) 502	To Mine Cutting & Channeling Machine Operator to Foreman to Contractor	40 hrs	High demand in certain regions.	\$160.00	Not available at this time.	<ul style="list-style-type: none"> <li>Operate self-propelled mining machines that rip coal, metal &amp; nonmetal ores, rock, stone, or sand from the mine face &amp; load it onto conveyors or into shuttle cars in a continuous operation</li> </ul>

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Electronic Repairer	35,352	5.1% / 1.9%	ACE/CETA <sup>†</sup>	To Journeyman	16 weeks	This is not your traditional pathway. The certification is not widely recognized, but the skills documented are relevant to position.	\$75	Not available at this time.	<ul style="list-style-type: none"> <li>• Work on electronic components &amp; circuits.</li> <li>• Solder</li> <li>• Read schematics</li> </ul>

**Transportation & Logistics, Wholesale Trade Sectors**

Occupation	Avg Wages	Indiana Outlook LT / ST*	Certification	Career Pathway	Avg. Instruct Hrs	Rationale/Notes	Cost of Cert Exam	Prior Learning Credits at Ivy Tech**	Related Skills & Competencies
Truck Driver, Heavy & Tractor-Trailer	\$37,588	15.4% / 6.3%	Class A CDL	Supervisor, Manager	150 hrs	High short term & long term demand.	\$16 permit fee, \$30 license fee	Not available at this time.	<ul style="list-style-type: none"> <li>• Operate a large truck</li> <li>• Obey all traffic laws &amp; regulations</li> </ul>
Laborers & Material Movers	\$23,382	.2% / 4.1%	Manufacturing Skills Standards Council (MSSC) Certified Logistics Associate (CLA)	Material Handling, Shipping & Receiving to First Line Supervisor or Manager of Helpers	40 hrs	Cert. Ladder: to Certified Logistics Technician (CLT)	\$115 - \$170	Not available at this time.	<ul style="list-style-type: none"> <li>• Use the computer systems &amp; software for supply chain management</li> <li>• Understand supply chain management &amp; quality control</li> </ul>
Laborers & Material Movers: Forklift Operators	\$30,000	3% / 2.9%	Certified Logistics Associate + Forklift Certification	Forklift operator to First Line Supervisor or Manager	50 hrs	Moderate demand that provides a livable wage.	\$39.95-\$49.95	Not available at this time.	<ul style="list-style-type: none"> <li>• Mechanically load or unload materials from pallets, skids, platforms, cars lifting devices, or other transport vehicles.</li> </ul>
Automotive Service Technician (Diesel Tech/Hybrid Tech)	\$22,000	2.5% / 0.0%	Automotive Service Excellence (ASE) Certification	To Automotive Specialty Technician to Automotive Master Technician	Not specified	Some concerns about demand, but easy to build pathway. Indiana test centers located throughout Indiana. Requires two years of experience before or after certification exam.	\$75	AUTC credits apply depending on the ASE exams passed	<ul style="list-style-type: none"> <li>• Diagnose problems or trouble with vehicle</li> <li>• Provide basic service for vehicle</li> <li>• Make repairs</li> </ul>

**Hospitality Sector**

Occupation	Avg Wages	Indiana Outlook LT / ST*	Certification	Career Pathway	Avg. Instruct Hrs	Rationale/Notes	Cost of Cert Exam	Prior Learning Credits at Ivy Tech**	Related Skills & Competencies
Hospitality Staff	\$28,971	15.9% / 4.6%	START	To Hospitality Skills Certification to Guest Services Gold Certification	180 hrs	High short-term & sustained long-term demand.	\$50.00	HOPS 101 (Sanitation & First Aid)	<ul style="list-style-type: none"> <li>Greet &amp; serve customers with professionalism</li> </ul>

\* Short-term (2010-2012) and long-term (2008-2018) projections were provided by DWD's Research and Analysis team. The timeframes are set by USDOL Education and Training Administration.

\*\* Prior learning credit is awarded at the discretion of Ivy Tech Community College. If a student has the current certification and is admitted into the related degree program at Ivy Tech, the student may be eligible to receive credit in the course(s) listed.

\*\*\* Sites that offer Microsoft certification testing often charge site usage fees. This fee can be minimal to several hundred dollars.

† These certifications are new and must participate in a 6-month pilot before becoming a permanent part of the framework.